FINAL PROPOSAL ON GENERATOR REPORTING REQUIREMENTS: BIENNIAL POWER PLANT CHARACTERISTICS AND QUARTERLY GENERATOR OUTPUT AND FUEL USE

The Ad Hoc Information Committee

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Disclaimer

This report was prepared by the California Energy Commission's Ad Hoc Information Committee to revise the Energy Commission's Data Collection Regulations in light of the Restructuring of the Electricity Industry. The report is proposed for adoption at a future Energy Commission Business Meeting. The views and recommendations contained in this document are not the official policy of the Energy Commission until the report is formally adopted.

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EXECUTIVE SUMMARY

OVERVIEW

In this report, the Ad Hoc Information Committee lays out its Final Proposal for collecting data on power plant characteristics, generator output and fuel use of generation facilities. The Committee's proposal outlines a new approach for acquiring data that streamlines and reduces overall reporting burdens for the industry from those practices currently in place.

The Committee believes that this approach will meet the Commission's goal of having a sound information base on which to develop and implement prudent energy policy for the State. The Energy Commission has very broad analysis and data collection authority under the Warren-Alquist Act, which allows it to monitor energy industries and assess long-term trends in order to develop and implement energy policy for the State. In much the same way as the Energy Commission tracks the oil and gas industry, the data the Committee is proposing to collect would be used by the Energy Commission in carrying out its mandated functions of market monitoring, trends assessment and policy development.

The primary benefit to the State of having essential information on, and an understanding of, the electricity industry is to:

- Serve as an early warning system for the Governor, Legislature, and other policymakers on emerging problems or opportunities in electricity markets.

- Identify and analyze market uncertainties in the mid- and long-term that are not addressed by market institutions such as the California Power Exchange (PX) and California Independent System Operator (ISO).

- Assess the environmental, health and safety, and other system impacts and benefits of new power plant and transmission line additions.

The Committee recognizes that efforts are currently underway in the Legislature and within the Administration to reorganize government in light of the electricity industry's restructuring. The Committee believes that while the roles of different governmental and quasi-governmental entities in the electricity market may change as a result of these efforts, the baseline data outlined in this proposal will still be needed to address issues in the State's purview. The streamlining of data collection outlined below will reduce the burdens on the electricity industry of past regulations and make compliance with new regulations much easier. Without these changes, data collection is likely to be out of step with the restructured electricity industry.

PAST DATA COLLECTION PRACTICES

Historically, the Energy Commission has collected data on the electricity industry through its Quarterly Fuels and Energy Reporting (QFER) and Common Forecasting Methodology (CFM) regulations. QFER provides historic data about energy consumption and how it was supplied.

Under QFER the Energy Commission collected data on electricity and natural gas consumed in California, electricity generated in the State, energy balances for each utility detailing sources and dispositions, and accuracy standards for end-user classification reporting requirements. The predominant source for QFER data over the last twenty years has been utilities. However, QFER data were also supplied by independently owned electric generators (without a sales relationship with a utility) and independent natural gas marketers (not using utility distribution pipelines).

The Energy Commission used data collected under CFM primarily in the preparation of its Electricity Report. The primary focus of CFM data was on projections of future electricity demand and supply. The data collected on the electricity industry under QFER and CFM were supplemented to some extent with data collected by federal agencies (i.e., Federal Energy Regulatory Commission and Energy Information Agency) and the California Public Utilities Commission.

In addition to preparing the Electricity Report, the Energy Commission has used data that it collects on electricity as input to a number of valuable products including the Commission's ***Energy Watch*** publication and ***Net System Power Report***, as well as the ***California Statistical Abstract***. In addition, the Energy Commission has used these data to respond to an enormous amount of special requests from other State and federal agencies, private consultants and individuals about how electricity and natural gas are used and produced.

FAIRNESS AND STREAMLINING DATA COLLECTION

The Committee is proposing major streamlining of data collection to accommodate the objective of reducing burdens on market participants in the restructured electricity market. Prior to restructuring and divestiture of investor-owned utility (IOU) generation, the IOUs were a primary source for data on California's electricity system. Under the restructured market, many individual market participants now have data that were historically provided to the Energy Commission by the IOUs. The Committee's proposal recognizes this fundamental shift in the source of generator data.

The Committee struggled with issues of equity in deciding what to require of both the new participants, including Energy Service Providers (ESPs) and generators, and the remaining entities of monopoly IOU providers, primarily the Utility Distribution Companies (UDCs) in the restructured market.

The Committee has attempted to strike a balance between competing interests in the proceeding by not placing undue burdens on new market participants, recognizing that some of the new participants are small companies with limited resources functioning in a market with slim margins. A key action in striking this balance is requiring the generators to file limited data directly to the Energy Commission. In developing this recommendation, the Committee relied on the principle, previously adopted by the Energy Commission to guide the rulemaking on data collection, that entities performing equivalent functions or providing equivalent services should have equivalent data submission responsibilities.

At the same time, the Committee wanted to resist the temptation to rely on existing monopoly entities for data that may no longer be appropriate for them to file on the behalf of others. The Committee also recognize that funding of many of the past resource-planning activities, which were the source of much of past data filed by UDCs, have been drastically reduced unilaterally by the UDCs.

NEW METHODS FOR ACQUIRING DATA

In order to address the varied and competing concerns of entities who participated in the proceeding, the Committee has developed new methods for acquiring data. These new methods place increased responsibility on Energy Commission staff for developing a database and estimation techniques that will reduce burdens to generators. The Committee believes these methods will have the additional benefit of developing a more informed and capable analytical staff.

Power Plant Characteristics

The Energy Commission will develop one database for power plant characteristics and require generators to assist in updating that database biennially. Rather than having parties routinely re-file power plant characteristic data, as was required in the past, the Committee proposes that staff periodically send the relevant portions of this database to individual generators for them to update, as necessary. As a result of this approach, the Committee is proposing to eliminate the vast majority of data and forecasts previously required under the Common Forecasting Methodology (CFM). The staff will be responsible for conducting forecasting activities (previously done by utilities) that are necessary for the Energy Commission to meet its assessment and policy development obligations. In addition, the Committee proposes the use of estimated values for the majority of data under a graduated set of requirements where less data is required from smaller facilities. This approach significantly reduces the burdens on UDCs but places limited new data collection responsibilities on new market participants such as independent generators. Under this approach, all owners of generation facilities will have equivalent reporting requirements.

Generator Output and Fuel Use

The Committee is also proposing that the generator output and fuel use data filed with other government agencies, in particular the Federal Energy Information Agency (EIA), be used to the maximum extent feasible, as a compliance option for generators. As a result of this approach, the Committee is proposing to eliminate and consolidate a number of forms for the data collection historically done under QFER, significantly reducing the number of QFER forms the Energy Commission will collect in the future. This change will help to reduce duplicative and redundant filings of data by market participants.

The Committee is convinced, based on its understanding of the costs of meeting these reduced data collection requirements encompassed by its generator data collection proposal, that the public benefits justify the reporting burdens.

CHANGES TO RESPOND TO PARTIES COMMENTS

The Committee is proposing the following changes to its original proposal, released on April 28, 1999, based on comments filed by parties, comments heard at the July 22, 1999 hearing and additional deliberations:

Power Plant Characteristics

The Committee concludes that while marginal cost-based modeling has a place in the Energy Commission's overall scheme to analyze electricity system and market issues, additional tools and expertise will need to be developed to adequately understand market conditions and behavior. The Committee's original proposal called for the collection of power-plant-specific-characteristics for power plants of 50 MW or larger directly from generators as part of the biennial update process. The Committee based this recommendation on staff's contention that these variables were absolutely necessary to allow for the modeling of the electricity system at a regional level. The Committee was persuaded that the use of data from other sources, estimates or proxies would be sufficient for several variables that are inputs to staff's modeling efforts. The Committee was not convinced that the use of estimates or proxies would significantly diminish the accuracy or defensibility of the staff analyses and modeling results. Therefore, Committee proposes the following changes to power plant specific characteristics requirements:

Heat Rates

The Committee proposes that the requirement for generators 50 MW or larger to file block heat rates be eliminated. Instead, the Committee proposes that generators file a heat rate value at full rated capacity as currently required by EIA. The Committee also recommends that staff develop the expertise and methods to allow it to estimate heat rate curves, including the use of degradation curves. In addition, the Committee proposes that as part of power plant siting cases, the Energy Commission require generators to file heat rate curves and expected degradation curves to aid staff in estimating heat rate values.

Operation & Maintenance (O&M) Costs

The Committee proposed to eliminate the requirement that generators file fixed and variable O&M costs. Instead of collecting actual O&M costs, the Committee recommends that staff develop estimates, or proxies, for O&M costs for use in modeling. The Committee expects O&M services and costs to become competitive services in the restructured market and believes staff should begin to investigate new techniques for estimating these services and costs.

Emission Factors

The Committee proposes to eliminate the requirement that generators file emission factors and instead proposes that staff work cooperatively with the California Air Resource Board (CARB) and regional air-quality management districts to acquire emission data necessary to support the Energy Commission's analysis of air quality issues in the restructured market.

Generator Output and Fuel Use

The Committee concludes that it should rely on its original proposal to collect generator output and fuel use directly from generators, with compliance options. Parties to the proceeding appear to support this approach. However, the Committee makes the following revision to that proposal.

Fuel Costs

The Committee concludes that its original proposal to collect historic fuel cost data on a quarterly basis from generators 50 MW or larger should not be eliminated. However, as an additional safeguard for this commercially sensitive data the Committee is proposing a three-month or one-quarter delay in the filing of this data.

Confidentiality

The Committee is convinced that the Energy Commission has ample tools available to adequately protect confidential data including the statutory scheme for handling confidential data under the Public Records Act. However, the Committee is proposing a parallel process to revise the Energy Commission's current Confidentiality Regulations along with the development of data collection regulations in the next phase of the proceeding. The Committee also believes that the Energy Commission would benefit from an internal review of staff's procedures for handling confidential data to identify any opportunities to improve current practices.

NEXT STEPS

Following release of this Final Proposal for Generator Data Reporting Requirements, the Committee proposes to complete the Consumer Data portions of this proceeding. The Committee has already held several workshops on consumer data issues and will be preparing its draft proposal for consumer data requirements for release in September 1999. Following release of this draft proposal, the Committee will offer parties the opportunity to file comments and reply to comments. The Committee plans to hold a hearing on the Consumer Data proposal in October 1999. The Committee would then release its Final Proposal for consumer data by then end of October 1999. The Committee proposes to combine the two proposals, Generator Data Requirements and Consumer Data Requirements, into one report. The Committee proposes to put the report before the full Commission for action at a regularly scheduled Business Meeting in November, 1999.

I. BACKGROUND

INTRODUCTION

In this report, the Ad Hoc Information Committee (Committee) lays out its proposal for collecting essential data from generators on power plant characteristics, generator output and fuel use of their generation facilities. The data the Committee is proposing to collect will be used by the Energy Commission in carrying out its mandated functions of market monitoring, trends assessment, and policy development. This proposal outlines a new approach for acquiring necessary data that streamlines and reduces overall reporting burdens for the industry from those practices currently in place. The Committee believes this approach will meet the Energy Commission's goal of having a sound information base on which to develop and implement prudent energy policy for the State. The Committee also believes this new approach is more appropriate for the restructured electricity market than past practices.

LEGAL MANDATES

The Warren-Alquist Act mandates the Energy Commission to evaluate the trends in energy supply and demand, statewide demographics and economic factors that would effect the demand and supply of energy; and the social, economic and environmental implications of these trends[1]. As such, the Energy Commission has very broad analysis and data collection authority under the Act to allow it to monitor energy industries and assess long-term trends in order to develop and implement energy policy for the State. The Act requires the Energy Commission to analyze supply and demand for all energy markets and energy products and services including electricity, natural gas, petroleum and petroleum products, transportation and alternative fuels, energy efficiency, and renewables.

In its June 12, 1998 Report on the ***Energy Market Information Proceedings***, the Committee developed findings of fact and conclusions of law with respect to its jurisdiction and authority for its information-related functions. This report was developed largely to respond to parties' questions and concerns regarding the Energy Commission's authority and jurisdiction in the restructured electricity market. At its June 24, 1998 Business Meeting, the full Energy Commission adopted the Committee's findings and conclusions dealing with the Energy Commission's jurisdiction and authority, as well as its roles and functions in the restructured electricity market.

The Energy Commission concluded that its responsibilities for assessing and monitoring energy market trends and developing energy policies continue to be justified and may become more important as the competitive electricity market emerges. The fundamental public interest rationale for continued assessment and monitoring of the electricity industry are the statewide electric system impacts and environmental impacts associated with electric facilities. The addition of new power plants and transmission lines directly impacts the operation of other power plants and transmission lines in the interconnected electricity grid and involves environmental

[1] Public Resources Code Section 25216.5

and other impacts that extend beyond the local area where facilities are sited. As such, an understanding of these impacts is an essential input to developing informed State energy policies.

The Energy Commission found that while the nature of the electricity industry has changed to rely on market forces and competition, restructuring, in and of itself, does not eliminate the need for its electricity monitoring and policy development functions. It is important to note that other energy markets have become increasingly competitive over the last 20 years, in particular oil and petroleum products markets. The Energy Commission has continued to monitor trends and assess these competitive markets, identified major emerging problems and helped to avoid some projected future problems altogether. These activities were supported by ongoing data collection on oil and petroleum markets that provided the information base for analytical studies.

The Energy Commission went on to endorse certain activities, including data collection, that support these core functions and concluded these activities remain important to State decision-makers, consumers and market participants. The Energy Commission concluded that electricity industry restructuring does not change the Energy Commission's authority to collect data necessary to carry out its mandated functions. The Energy Commission also concluded that it has ample authority under existing mandates to collect data to support its core functions from new market participants, where appropriate.

PAST DATA COLLECTION PRACTICES

The Energy Commission has collected two types of data with respect to electric generation in the State:

- Generator output, or production, and fuel use for various facilities; and
- Power plant, or generator, characteristics including engineering characteristics of various facilities.

Historically, data on generator output and fuel use was collected primarily through the Quarterly Fuel and Energy Reporting (QFER) process. Utility Monthly Fuel and Operations Report (UMFOR) and Federal Energy Regulatory Commission (FERC) forms supplemented these data. QFER included different reporting requirements for generation facilities depending on their ownership by utilities, private entities selling power, private entities producing power for their own use on site, and facility capacity. QFER consists of approximately 10 different forms requesting data on electricity generation output and fuel use. (See **Appendix A** for listing of relevant forms)

Data on power plant characteristics was historically collected through the CFM process under the Biennial Forecast and Assessment of Loads and Resources Regulations. A great deal of specific information was reported by utilities through CFM. Unlike the QFER data forms that were adopted once and remained static, CFM was explicitly revised and adjusted as the first step of each ***Electricity Report*** (***ER***) cycle. The concept was to adjust the specific filing requirements to satisfy the specific information needs of the likely issues to be addressed in the ***Electricity Report.*** CFM regulations formed the framework for utility filings of demand forecasts and resource plans that were then turned into specific filing requirements.

Electricity Report 96 involved approximately 20 individual forms for "non-regulated" utilities and approximately 35 forms for utilities. (See **Appendix A** for list of relevant forms.)

One of the primary uses for the above data prior to restructuring was for the Energy Commission to carry out its forecasting and assessment function to develop State energy policy through an open process of determining trends, developing projections, and assessing options for meeting anticipated demand growth. The resulting ***Electricity Report***, mandated by the Warren-Alquist Act, guided government determinations of how much electricity was needed and explored alternatives to constructing new generation facilities. It also served as a central basis for the Energy Commission's power plant siting process. In addition, data was used to support other analytical studies on issues including electric system reliability, air impacts, the role of municipal utilities, deregulation issues and other emerging issues.

RESTRUCTURED ENVIRONMENT

Restructuring of the electricity market has led to increased reliance on competition and introduced new market participants, market institutions, and products and services. Prior to restructuring, investor-owned and municipal utilities were the primary agents generating and delivering electricity to end-use customers. These utilities were the principal sources for data and information on the electricity industry. The Energy Commission routinely collected data from electric utilities to carry out its historic, mandated responsibilities in assessing trends, resource planning and power plant siting. Beginning in the 1980s, independent power producers became an additional source of data on their electricity production that was sold to utilities.

Electricity industry restructuring allowed for the creation of new market participants including energy service providers, scheduling coordinators, aggregators, and non-utility generators. New market institutions including the ISO and PX were also created which changed the relationships of the various market participants to each other. In addition, with the divestiture of IOU generation, IOUs no longer control the majority of generation in the State. Municipal utilities continue to generate and serve the needs of their customers, some participating in the ISO and PX while others are not. The designers of restructuring anticipated the emergence of new types and classes of independent generators who would sell directly to the market, not through contracts with utilities, as was the case in the past. Consequently, continued reliance on utilities for data regarding all of the generation in the State is no longer appropriate.

At the same time, the competitive nature of the restructured market means that data reporting burdens must be carefully weighed against the need for the data. Many new entities in the market are small generators with limited staff and resources. In addition, the changing role of IOUs means that much of the historic planning-type activities once conducted by these utilities that formed the basis for much of the data submitted to the Energy Commission are no longer being undertaken in the restructured market.

The role of government in the restructured environment is also being re-examined. The supply and resource planning activities traditionally carried out under the ***Electricity Report*** are being re-evaluated. In crafting these portions of the Warren-Alquist Act, the Legislature

could not have foreseen the introduction of competition and restructuring of the electricity market that would

occur over the twenty years since its passage. As a result, the regulatory and data collection requirements of the ***Electricity Report*** and CFM may no longer be in step with the restructured environment. The Energy Commission is considering this issue, along with other issues regarding our functions in the restructured market in other public processes.

These factors have led the Committee to examine the Energy Commission's need for data, the type of data to be collected, and the most appropriate sources for collecting necessary data. For the purposes of this proceeding, the Committee is addressing data needs for the Energy Commission to carry out its mandated functions of market monitoring, trend assessment, and policy development.

Under the monopoly structure, the Energy Commission assessed statewide and service area supply and demand issues. Since monopoly providers had a geographic franchise service territory and an obligation to serve, the service area approach to analyze regional issues and impacts made sense. The Energy Commission forecasted demand and assessed supply trends, including power plant operating characteristics such as reserve margins, other components of supply, and demand side strategies for each major service area.

Under restructuring, statewide assessment remains an important duty of the Energy Commission. However, service territories no longer adequately define the regional aspects of the electricity system. In the restructured environment, the structure of the ISO and PX is based on zones (established based on transmission capabilities) within the State. Generators bid their generation into the PX on the basis of zones. The ISO operates the system to provide transmission services, congestion mitigation and ancillary and other essential network services also on a zonal basis. In accordance with this shift in the structure of the market, the Energy Commission may choose to analyze regional electricity system issues and impacts to correspond to these zones.

II. PUBLIC PROCESS

ENERGY MARKET INFORMATION PROCEEDING

In order to bring its data collection and information-related functions and responsibilities more in line with this restructured industry, the Energy Commission established the Ad Hoc Information Committee (Committee) and delegated to it three principal tasks:

- Initiate a rulemaking to amend and delete existing regulations and adopt new regulations relating to disclosure of Energy Commission records (confidentiality regulations);
- Convene a proceeding to serve as a central forum for the discussion of issues associated with the Energy Commission's data-related responsibilities that may be broader than regulation changes;
- Initiate a rulemaking to revise the Energy Commission's data collection regulations.

The Committee prepared revisions to the Energy Commission's confidentiality regulations that were adopted by the Energy Commission on April 15, 1998 and have since been approved by the Office of Administrative Law. The Committee held a series of workshops to address the broader issues of data needs and the necessary changes to data collection regulations in light of electricity industry restructuring. Parties raised concerns regarding the Energy Commission's authority to collect data from various market participants and the functions the Energy Commission would perform under restructuring. The Committee's work on the rulemaking was effectively suspended while it deliberated these concerns. The June 12, 1998 Report on the ***Energy Market Information Proceeding***, previously referred to, dealt with the primary issues of jurisdiction and functions. On June 25, 1998 the Committee released its ***Scoping Report Describing Resumption of the Rulemaking*** that outlined the scope and timelines for the resumed rulemaking.

The Committee held a series of five workshops to review exact data needs and various alternative ways that data could be acquired. There were a number of active participants in these workshops including representatives from UDCs, ESPs, independent generators, owners of divested generation, and others. Staff prepared a series of issue papers dealing with data needs, methods and uses that were released and discussed at the workshops. In addition, parties filed comments and proposals for the Committee's consideration. **Appendix B** outlines the workshops, staff papers and comments filed by parties in the proceeding.

The Committee released its Draft Report on Generator Data Requirements on April 28, 1999. Following release of the report, the Committee held a workshop on May 10, 1999 to take initial comments and provide clarification on issues raised in the report. As a result of the May 10 Workshop, the Committee released clarifications on May 18, 1999 on several issues and questions raised by parties to the proceeding. At the same time the Committee issued a notice extended the comment period for parties to respond to the Draft Report to June 7, 1999. At the May 10 Workshop, the Committee directed the parties to file specific and detailed comments and to refrain from restating their macro policy comments expressed during the workshop. Five parties filed comments with the docket and one filed comments using e-mail.

Commenters included Sempra (San Diego Gas & Electric), Southern California Edison (SCE), Independent Energy Producers (IEP), Southern Energy California (Southern Company), Mammoth Pacific LP (Mammoth) and Energy Commission Staff (staff).

For the most part, the parties heeded the Committee's direction and filed specific, detailed comments. In many cases, these were the first detailed comments filed in the proceeding on some subjects and presented the first concrete arguments the Committee and other parties could consider. However, in some areas parties did not supply sufficient detail to support their statements, particularly in the area of costs/burdens and the details and locations of alternative data sources that the Committee was expecting. For this reason, the Committee established an additional hearing on July 22, 1999 and provided parties with the opportunity to file reply comments by July 13, 1999. The Committee received reply comments from only one party, Energy Commission staff.

SUMMARY OF PARTIES COMMENTS

The following is a summary of major issues raised in the parties' comments. Several themes were presented in the comments, including concerns regarding:

- The costs and/or burdens associated with the Committee's proposed data collection;
- The need for the Energy Commission to acquire certain data and the proposed uses for data that parties believe is proprietary or commercially sensitive;
- The ability of the Energy Commission to adequately protect confidential data; and
- The availability of alternative sources for data such as historic data, data from other public agencies (EIA and FERC), and reliance on estimation and statistical sampling techniques.

SCE supported the Committee's efforts to streamline generation data collection. It further supported the Committee's conclusion that with restructuring, and the change in ownership of generation facilities, continued reliance on utilities for data regarding all of the generation in the State is no longer appropriate. SCE commended the Committee for incorporating in its proposal the principle that entities performing equivalent services should have equivalent data submission responsibilities. SCE raised a concern that validation and enforcement mechanisms used by the Energy Commission when generators do not comply with data collection requirements should also provide for equal treatment for all entities. SCE noted that entities should not be excused from complying with specific data collection requirements based on limited staff and resources if data reporting requirements are to be applied on an equal basis as provided by the Committee's principles.

Sempra commended the Committee's proposal to streamline the reporting requirement on generation data, noting that any reduction in reporting encourages the promotion of competition in the restructured market. Sempra agreed with the Committee that operating data on independent generators (or qualifying facilities) should be reported directly to the Energy Commission by the generator instead of from utilities. They continue to have concerns about confidentiality of certain data on price and usage that they believe is extremely sensitive. Sempra suggest that use of statistical sampling, as an alternative to collection of data in some cases, would protect such confidential data. However, Sempra did state that since it is has divested itself of the majority of its generating assets, generators should make their own case for confidentiality of their data.

IEP raised objection to the Committee's proposal to collect power-plant-specific data even on a limited basis (for power plants of 50MW or greater in size) and for limited characteristics when compared with past reporting requirements. IEP contended that the Committee's proposal requests proprietary data from generators in a costly and unwarranted manner. They argued that the collection of proprietary data, which they believe the Commission will not be able to adequately protect, will harm competition and is not justified under restructuring. IEP proposed that instead of collecting actual data, the Commission should rely on statistical sampling, dummy variables, proxies and publicly available data.

Southern raised concerns about providing competitively sensitive information that could be used to their disadvantage by competitors or potentially misinterpreted and used against them in regulatory proceedings. They believe the collection of proprietary data is inappropriate and dangerous because having it in one central location simply provides too much temptation and a real possibility that others will acquire it. In addition, Southern raised concerns that the data the Committee is proposing to collect will not be sufficient to meet it market monitoring goals. They note that California generators are part of a region-wide electricity market and entities outside California are not required to provide detailed data to the Commission, negating the value of precise data on California generators. Southern suggests that the Energy Commission's mandate to provide mid- and long-term forecasts can be achieved using publicly available information.

Staff of the Energy Commission filed comments restating the need for continued data collection, although the Committee's proposal drastically reduced from previous data collection practices, for the Energy Commission to adequately carry out its electricity monitoring and policy development functions, including electricity system analysis. Staff conceded in their reply comments that they could use generic values by technology type for plants less than 50 MW as long as these smaller plants are not the marginal generators most of the time, as asserted by IEP. However, staff argued that the Committee correctly concluded that estimated values for power plants specific characteristics for generators greater than 50 MW (e.g. block heat rates, O&M costs, and fuel costs) would be inadequate to accurately analyze regional, zonal or location specific impacts for the electricity system. This conclusion was based on system simulation studies contained in the record of the proceeding. Staff argued these inputs are essential for the Energy Commission to conduct credible and defensible analyses to examine emissions, transmission congestion, reliability and other issues critical to the State. Staff further argued that parties had overstated the ability of the Commission to rely on estimation, statistical sampling and publicly available data.

Mammoth applauded the Committee's attempt to use existing reports to other agencies as sufficient substitutes for CEC forms in conducting data collection. However, they did note that because of differences in frequency and reporting requirements for other agency forms, the Committee's proposal results in an increase over their existing reporting requirements that they estimate would increase reporting burdens by 1200% over current reporting requirements. [2]

[2] Staff's reply comments argue that this is an overstatement of reporting burdens since a large part of the burden is creating and maintaining databases. Once these databases are created, the incremental burden of reporting is minor.

COMMITTEE REPONSE TO PARTIES COMMENTS

The Committee presents its responses to the four major themes outlined above in the following discussion. The Committee would like to preface its responses with the following comments. The Committee and parties to the proceeding have worked long and hard over the last two years to arrive at final decisions on generator data collection. The Committee acknowledges the active and thoughtful participation of the parties in this proceeding and the significant contribution they have made to the development and refinement of the Committee's Final Proposal on generator data. In particular, parties input helped the Committee establish guiding principles for this proceeding which form the foundation and justification for the Final Proposal contained in this report. Parties also helped the Committee identify estimation techniques and compliance options that will reduce overall data reporting burdens.

The Committee has had to make difficult decisions that not all parties are in complete agreement with. The Committee has been very sensitive to concerns raised by parties and has made every effort to minimize costs and burdens associated with data collection while at the same time protecting commercially sensitive data. This includes additional changes in the Committee's proposal to accommodate parties' concerns as summarized above and described in the following sections. In the end, the Committee believes its recommendation will provide the Energy Commission, a public interest decision-making body, with sufficient data to allow it to carry out its mandated responsibilities. The Committee strongly believes its' Final Proposal has struck an appropriate balance of the competing interests represented in this proceeding.

Costs and Burdens of Proposed Data Collection

Several parties including IEP, Southern and Mammoth raised concerns about the costs and burdens associated with complying with the Committee's data collection proposal outlined in the April 28, 1999 Draft Report. Parties alleged that the Committee's proposal was burdensome and costly for non-utility generators and not justified in a restructured market. One difficulty for the Committee in dealing with issues of burdens and costs is that many of the parties complaints were generic in nature and largely unsupported in the record.

Several parties, primarily independent generators, who oppose all of portions of the Committee's draft proposal appear to be comparing the proposed data collection requirements against a "no project" or "no data collection" alternative. The Committee notes that some parties appear to believe that the Committee has before it the option of collecting no data whatsoever from independent generators. In this context, parties then assert that the Committee's proposal is costly and burdensome because any direct data collection imposes some costs and burdens.

This ignores the Energy Commission's need for, and jurisdiction to, collect data from new market participants. It also ignores the innovative features contained in the Committee's proposal to streamline and reduce overall reporting requirements. The Committee believes a more appropriate comparison for burdens and costs is against the existing reporting requirements under QFER and CFM. From this perspective, the Committee's proposal represents a major streamlining of existing data requirements that are largely ignored by parties in raising objections based on costs and burdens.

To require no data from independent generators, as some parties have suggested, would violate the guiding principles of this proceeding. Opponents of the proposal have mistakenly given

over-riding importance to what they term as the "least cost" and "least burden" principle previously adopted by the Energy Commission for this proceeding. The Energy Commission adopted several additional principles that are largely ignored by parties opposing the Committee's proposal on the grounds of costs and burdens. The costs and burdens must also be considered along with the principles of efficient, equitable and cost-effective methods, not just for market participants, such as the independent generators, but also for other parties and the Energy Commission staff. The principle that entities performing equivalent functions or delivering equivalent services should have equivalent data submission responsibilities is also ignored by parties objecting to any direct data collection. The Committee believes its proposal strikes the appropriate balance between these principles.

The Committee notes that its proposal for collecting data on power plant characteristics involves shifting the primary burden for data collection to the Energy Commission staff. Under this proposal the staff would develop a database for each generator, using existing data. Staff would generate a customer report that would be sent to each generator every two years. All that would be required for the generator is to update this report to reflect any current or known changes to the power plant characteristics provided by staff. Using the revised reports, staff would update its power plant characteristics database. The Committee reiterates its original assertion that this biennial update process significantly reduces burdens on UDCs from existing reporting requirements while simultaneously placing only minor data collection responsibilities on independent generators. The Committee has outlined, in a later section of the report, additional changes to its power plant characteristics proposal that will further reduce reporting burdens on generators and shift additional responsibilities to staff.

The Committee notes that for generator output and fuel use data, because of the compliance options of filing EIA data to meet much of this requirement, the filing burden was negligible. The Committee acknowledges parties comments that its proposal increases the frequency of the filing of generator output and fuel use data, for generators 10 MW or larger in size, over what they currently file with EIA and/or FERC. However, the Committee is not persuaded that its requirements are overly burdensome or costly.

Need for Proprietary or Commercially Sensitive Data

Several parties, particularly IEP, contended that the Committee's proposal to collect proprietary operational and cost data from generators imposes undue costs and competitive risks to generators with no countervailing public benefits. IEP further asserts that the Committee's Draft Report (April 28, 1999) failed to demonstrate the necessity for collecting data and how these data meet the Energy Commission objectives of market monitoring, trends assessment, and policy development. In the previous section the Committee has addressed issues of costs and burdens. The remainder of this discussion deals with need for the data.

The Committee's draft report clearly states the need for data to support the Energy Commission's role and functions of market monitoring, trends assessment and policy

development.[3] The Committee report lists several important assessment activities for which the Commission is responsible. These include the need to inform the Governor, Legislature, and the public about the mid- and long-range outlook for the electricity industry and the impact of future demand and supply trends on the economy, the environment, and public health and safety. In addition, the Energy Commission serves as an early alarm system for identifying emerging problems and opportunities. Numerous other analytical activities are outlined in Section III of this report and in both staff's comments and reply comments.

Some parties suggested in comments and in verbal testimony that the Energy Commission's proposed role in market monitoring is duplicative of market surveillance efforts already underway at the ISO, PX and Electricity Oversight Board and are therefore unnecessary. The Committee notes that the Energy Commission's role in market monitoring may have been misunderstood by parties to the proceeding. Market surveillance to identify gaming and bidding strategies or other behavior that would be considered abuses of market power in the day-to-day operations of the market are clearly within the purview of the previously mentioned entities. The Energy Commission has no interest in duplicating such efforts and is not proposing to do so. Rather, the market monitoring activities envisioned by the Energy Commission have more to do with mid- to long-range issues not being addressed by other entities in the market nor by a public policy body.

With respect to the challenge regarding benefits, the above-mentioned activities provide obvious benefits to the people of California and the decision-makers who must act on their behalf. These benefits include:

- determining whether state policies are being implemented and whether the benefits of restructuring are being realized by consumers;
- providing objective, credible information to help reduce uncertainty for market participants and enhance consumer choice; and
- ensuring the Energy Commission public purpose programs (energy efficiency, renewables, and R&D) are successful in the restructured market.

Some parties may object to the Energy Commission's intent to continue electricity system analysis activities or to the roles the Committee's report and the full Commission have endorsed. However, the Committee concludes that parties contention that the report fails to substantiate the need for data has little, if any, merit. The Committee is convinced that the public benefits justify the data collection that is proposed.

As to the Committee's proposal to collect data that parties contend is commercially sensitive or proprietary, the Committee is convinced, that in some **limited** cases, proprietary information is necessary for the Energy Commission to carry out its mandated functions. The fact that information is competitively sensitive does not relieve market participants from the obligation to provide information needed by state and/or federal agencies to perform their functions. In fact, the Legislature has adopted a statutory scheme in the Public Records Act that allows state agencies to conduct their business while protecting confidential data. These protections negate the

[3] Ad Hoc Information Committee Report on Generator Reporting Requirements, April 28, 1999, pp. 1-2 and 7-8.

possibility that sensitive data will be obtained by others to the detriment of competitors or the market as a whole.

The fact that these mechanisms are effective in enabling state agencies to both use and protect confidential data is confirmed by the long history the Energy Commission has in collecting confidential data – under QFER, PIIRA, and other regulatory programs – without release. The Committee has made every effort to minimize the amount of confidential data it will collect to only that which is absolutely essential for the Commission to meet its responsibilities. The Committee is also committed to additional efforts to assure that any commercially sensitive information collected by the Energy Commission will not be released to the detriment of any party. These efforts are described in the following section.

Adequate Protections for Confidential Data

Several parties have suggested that the Commission cannot adequately safeguard against the release of data to competitors. They argue this creates a risk of harming competition that is ultimately to the detriment of consumers. IEP argues that the Energy Commission may be required by rule or law to divulge confidential or proprietary information if and when the data or information is used as the underpinnings to a Commission policy decision in the future. IEP further argues that interested parties will not necessarily accept "black box" analyses as the underpinning of Energy Commission decision-making.

The Committee has already addressed the statutory scheme that is in place to protect confidential data and believes there are appropriate restrictions to prevent disclosure of data. If a situation arises in which a proposed Energy Commission policy decision rests upon confidential data, the Commission will be obligated to weigh the interests of the information holder against the public interest to decide on the appropriate treatment for confidential data. This weighing of interests could result in a range of measures being imposed, depending on the nature of the proceeding, the role of the data in supporting the decision, and the types of interests affected. Many government bodies have procedures in place to address just these situations, as pointed out by California Cogeneration Association in the proceeding. The Energy Commission can protect confidential data by a number of available measures. For example, confidential data can be protected by conducting closed hearings, protective agreements, as well as by denial of access.

The decision about which measures, if any, to impose, will necessarily be dependent upon the facts of the specific situation. For example, a competitor who seeks confidential data submitted by a market player in an Energy Commission proceeding might be denied access to information. On the other hand, another participant representing an environmental interest may not be denied access if a confidentiality agreement is signed. Similarly, an individual's right to access information in a rulemaking proceeding may be accorded much less weight than that of a licensee seeking information relevant to a license revocation proceeding.

The Committee is confident that the Energy Commission can and will weigh the competing interests and impose appropriate restrictions to balance the interests of the participants in the proceeding. The concern that the Energy Commission may, at some point in the future, make the "wrong" decision about the appropriate balance of interests is not the determinant of what data the Energy Commission should collect. The Energy Commission's needs for data to meet its mandated responsibilities is the appropriate determinant of what data to collect.

Parties have raised concerns about the current Energy Commission Confidentiality Regulations and the provisions for disclosure. In this proceeding, staff has already suggested that the Energy Commission should develop language for blanket confidentiality designation and disclosure for both generator and consumer data. Staff has also indicated that the Commission could benefit from the review of current protocols and the development of additional internal procedures for handling confidential data. The Committee agrees that the Energy Commission's ability to adequately safeguard confidential information is of paramount importance not only to the parties to this proceeding, but to the Energy Commission as a whole.

As a result, the Committee proposes that a parallel process be initiated to revise the Energy Commission's confidentiality regulations along with the development of data collection regulations to take place following Commission action on the Committee's data collection proposal. This would allow the Committee to establish blanket confidentiality protection for appropriate data elements, alleviating the need for parties submitting certain categories of data to make case-by-case arguments for trade secret protections and disclosure rules and methods. The Committee also proposes to initiate an internal review of staff's confidentiality procedures to eliminate any potential flaws and identify opportunities to improve existing practices. With these additional efforts, the Committee is convinced that it is doing everything within its power to assure that confidential data is adequately protected by the Energy Commission.

Use of Alternative Sources for Data, Estimation Techniques and Statistical Sampling

Several parties suggested that the Committee should rely on alternative sources of existing and historic data, use estimation techniques and perform statistical sampling to obviate the need for direct data collection by the Energy Commission. The Committee agrees with parties that these approaches to data collection are valid and has incorporated numerous such features in its proposal. The Committee has already identified numerous areas where the filing data submitted to other agencies, particularly EIA, will serve as compliance options for meeting Energy Commission data collection requirements. The Committee also incorporated estimation techniques for fuel price forecasts and power plant characteristics for generators less than 50 MW in size. Based on additional investigation into the use of estimation techniques and alternative sources of data and parties comments at the final hearing, the Committee has identified some additional areas where changes to its original proposal are warranted, as described in the following section.

However, in suggesting that these approaches are a substitute for **all** data collection, parties have misunderstood the Committee's intent in its statements supporting these alternative approaches. While the Committee agrees with the use of estimation techniques for some discrete data elements, the Committee has not made a wholesale endorsement for this approach in lieu of direct data collection. IEP's assertion that estimation is a preferred approach to direct data collection, and should be applied as a guiding principle, fails to acknowledge the principles already adopted for this proceeding, as addressed in an earlier discussion. The Committee believes it has made every effort possible to minimize direct data collection under its proposal and to rely on alternatives where they meet the Energy Commission's needs for data.

PROPOSED CHANGES TO COMMITTEE PROPOSAL

Based on comments of parties and additional deliberations on issues raised at workshops and hearings, the Committee is proposing several changes to its April 28, 1999 proposal for generator data. These changes and the rationale behind them are presented in the following discussion. The changes involve the following issues:

Power Plant Characteristics

- Collect heat rates at full capacity, rather than by block, for power plants 50 MW or larger in size.

- Use estimation techniques to determine Operating & Maintenance costs for power plants 50 MW or larger in size.

- Use estimation techniques, in cooperation with air quality regulatory bodies, for emission factors for power plants 50 MW or larger in size.

Generator Output and Fuel Use

- Collect historic fuel costs for power plants 10-50 MW and 50MW or larger in size with a one-quarter delay in the filing deadline to provide additional safeguards for this commercially sensitive data.

Power Plant Characteristics

Parties contended that production-cost modeling based on marginal-cost theory was not appropriate considering the restructured nature of the market. In addition, parties contended that the precision being sought by staff in requiring specific variable such as heat rates, O&M costs, and fuel costs was unrealistic and not necessary to support the Energy Commission's functions. Parties further argued that the Energy Commission staff was proposing to simulate the actual bidding strategies of each generator in the state and IEP argued that observation of market results showed no correlation between marginal costs and bidding strategies.

The Committee agrees with IEP's comments in part, but concludes that the production cost modeling based on marginal cost theory has an appropriate place in analyzing the restructured market. Model results can be used to compare realized market prices in order to measure economic efficiency. The results can also be used to assess resource sufficiency and whether investments in transmission and generation are supported by market clearing prices. In addition, model results allow the Energy Commission to examine the following: price differences among regions; mid- to long-term reliability; transmission congestion by region; emissions by region; cost-effectiveness of energy efficiency measures and investments; and cost-effectiveness of renewables and PIER mandates. The Committee further notes that academics, consultants and FERC rely on marginal-cost approaches, similar to the staff's, in analyzing the electricity market.

The Committee believes that marginal-cost approaches may not be sufficient to approximate bidding behavior in the restructured market and market results. So far, market behavior and clearing prices would appear to bear this out. The Committee believes that marginal-cost based models, such as those currently used by staff, have value in assessing some electricity system

and market issues before the Energy Commission. However, the Committee believes that additional tools and expertise will need to be developed as part of an overall scheme to gain a better understanding and assessment capability of electricity market conditions and behavior. The Committee proposes the following changes with respect to power plant characteristics.

Heat Rates

The Committee is proposing that the requirement from the draft proposal that generators file heat rates by block (four points on the heat rate curve for each facility) for generators 50 MW and larger be eliminated. In its place, the Committee proposes to require generators in this size category to file a heat rate value at full rated capacity (heat rate at 100% capacity factor) consistent with current reporting requirements at EIA. As new facilities are permitted through the Energy Commission's siting program, the Committee proposes that facility owners be required to supply the Energy Commission staff with a heat-rate curve and expected heat-rate deterioration curve. The heat-rate deterioration data could be based on the manufacturers warranty or other assurances on expected heat rates over the life of the plant. This information, in combination with staff research into deterioration rates for other plants, should be sufficient to allow the Energy Commission to model the electricity system with an adequate level of accuracy.

Several parties suggested the use of average heat rates in lieu of block heat rates as sufficient for the Energy Commission electricity system analysis. To the contrary, staff has argued that block heat rates are necessary inputs to the staffs' production-cost models for the electricity system. To help resolve this conflict, the Committee requested staff to conduct an analysis of the effect of heat rates on modeling results. Staff argued, based on the results of that analysis that the use of average heat rates would eliminate the Energy Commission's ability to model the electricity system at sub-regions of the State with a high level of accuracy. In its analysis, staff further argued that heat rates move up-and-down by generator and by generation level at specific facilities depending of the level of maintenance. They noted that heat rates also vary based on the degree of deterioration or refurbishment and geographic locations – i.e., the same unit would be more efficient in a cold environment than a warm one, or if properly operated and maintained rather than receiving less attention.

One of staff's primary concerns with estimating heat rates based on the development of deterioration curves or other estimation techniques relates to the existing population of older power plants. Staff argued that information on deterioration rates for these older facilities are not readily available and the variation in these facilities, and where they are in their cycle of deterioration or refurbishment, makes estimation of heat rates highly speculative. The Committee agrees that it may be problematic to estimate heat rates for these generators. However, the Committee notes that planned refurbishments and turnover in this population of generators will make this less of a problem over time. Furthermore, the variation in historic heat rate data used in staff's analysis of the impact of estimated heat rates on statewide and regional analysis could not be readily explained or correlated to specific operating changes, changes in equipment or refurbishment, or other factors. This led the Committee to question the validity of heat rate values and their impact on model results.

Ultimately, the Committee was not convinced that the loss of block heat rates would significantly jeopardize the ability of staff to conduct system modeling, even at a regional level. The Committee

believes staff can develop the necessary expertise in understanding heat rate deterioration trends, along with estimation techniques, that will assure its analyses continue to be credible and defensible in the future without the filing of block heat rates by generators.

Operation & Maintenance Costs

The Committee proposes to eliminate the requirement that generators file fixed and variable O&M costs for power plants 50 MW or larger. The Committee proposes that instead of actual O&M costs the staff should develop proxies or estimates for O&M costs for use in modeling. There is no evidence to suggest that the traditional patterns of operation and maintenance, observed in the regulated utility regime, should be expected to continue under deregulation. Power plant owners are finding new methods of acquiring O&M services and paying for O&M costs. These new methods include contracting-out maintenance to lower costs and buying O&M packages from turbine manufacturers. The Committee expects O&M to become competitive services like many other new services in the restructured market. The Committee believes it is important for staff to investigate how O&M services are being provided and costs are being treated in the restructured market and develop better estimation techniques. The Committee believes the use of historic data or proxies should be sufficient to allow the Energy Commission to model the electricity system with an adequate level of accuracy.

Parties argued that estimation or use of proxies for O&M costs would be sufficient for the Energy Commission modeling and electricity assessment purposes. Staff argued that O&M costs were essential in projecting seasonal market clearing prices. Other parties argued that O&M costs are not a part of dispatch decision under the restructured market. Staff noted that both the fixed and variable O&M costs are important in the analysis of price and the viability of generation to sustain the generation market in the near- to long-term. Staff notes that if bidding in the market is based solely on variable costs and many units fail to attract sufficient revenues to survive in the market some units may fail. The market must somehow, between energy payments, RMR contracts, and ancillary service payments, provide sufficient revenues to sustain the generation market.

The Committee believes that reliance on estimates and proxies in the near term should be sufficient for staff's modeling activities to support electricity system analyses. The Committee further believes that staff must begin to develop its expertise and understanding of how O&M services and costs are being handled in the restructured market.

Emission Factors

The Committee proposes to eliminate the requirement in the draft proposal that generators file emission factors for power plants above 10 MW in size. The Committee proposes instead that the Energy Commission staff actively pursue cooperative arrangements with the California Air Resource Board (CARB) and the regional air quality management districts to acquire emission factors and other emission data necessary to support the Energy Commission's analysis of air quality issues in the restructured market. Staff argued that information on emission factors was necessary to conduct analyses to support attainment planning and other regulatory decisions by air quality regulators that affect the electricity industry. While the Committee supports the continuing efforts of staff to increase the sophistication of air quality analysis and modeling capabilities, the Committee believes that under restructuring the CARB and the regional districts are a more appropriate source of emissions data for the Energy Commission than are generators.

Staff argued that power plant owners monitor their plant emissions for both internal operating and air quality regulatory purposes. The original Committee proposal described two types of requirements for emission factors – those that do not need to match capacity block heat rates and those that do. While staff argued that annual average emission factors were sufficient for the former group, heat rate linked emission factors are required for the latter group. Parties representing generators argued that the proposed emission factors were not readily available for use in the normal course of business. IEP, in particular, objected to the filing of emission factors by generators because they involve use of computer models to process large amounts of raw data and make complex, painstaking calculations. They noted that while IOUs presently do this, non-utility generators do not have expertise, or the capability, to conduct these studies and provide the data. The Committee was persuaded that generators, whether IOU or non-utility, should not be required to file power-plant-specific emission-factor data.

Generator Output and Fuel Use

Parties to the proceeding appeared to find acceptable the Committee's proposal for collecting generator output and fuel use data, particularly using EIA forms as a compliance option. However, they did question the need for this data on a quarterly basis. Staff argued that quarterly reporting was necessary to allow the Energy Commission to complete certain statutory requirements such as the Net System Power Report that must be submitted to the Legislature. The Committee has already stated its intention that the Energy Commission must produce more timely and relevant information on the restructured electricity market and system than it did in earlier ER processes. The Committee shares staff's concerns that if data is collected only on an annual basis, there will be a significant lag in the availability of data to conduct on-going analysis. The Committee believes that the need to conduct more timely and relevant analysis is the primary reason why quarterly reporting should be maintained.

Parties suggested in their comments that the Energy Commission should acquire the necessary data on generator output and fuel use from existing data sources, such as EIA and FERC, and historic data in lieu of direct data collection from generators. Staff noted a number of shortcomings in the data sources identified by other parties and the time-consuming and inefficient process this would involve. The Committee is persuaded that it would be very inefficient for staff to search out several possible data source for the data elements outlined in the Committee's proposal, then download (if available electronically) or acquire hard copies for nearly 1,000 generators located in the state. The Committee concludes that the original proposal to collect generator output and fuel use data directly from generators, with compliance options, is a more efficient method of data collection. However, the Committee is proposing one change to the reporting of fuel costs as follows.

Fuel Costs

A primary area of dispute with respect to generator output and fuel use data has to do with the proposed collection of historic fuel costs. Several parties objected to the filing of historic fuel costs on the basis that the information is highly sensitive from a commercial standpoint and is unjustified for the purposes of modeling the electricity system. Staff argued that fuel prices are an extremely important, perhaps the single most important, factor in dispatch decisions by generators. They noted that gas prices for natural gas vary due to supply source and transport costs, which in turn create cost differences in different regions and at different sites throughout the state. Staff argued that using statewide average prices for natural gas, as advocated by generators, would diminish staff's ability to model cost-based dispatch decisions, thus

significantly reducing their ability to accurately analyze regional market clearing prices, emissions, and transmission congestion. Staff also noted that while there are some indicators of natural gas prices at certain locations throughout the state that are reported in trade journals, these prices are not actual costs and instead are based on samples and surveys of gas purchasers, the accuracy of which cannot be readily determined.

The Committee is persuaded that natural gas prices are a vital input to electricity system analyses, as well as to other Energy Commission efforts to forecast and assess natural gas prices and supply availability under the Fuels Report requirements. The Committee notes that it is has already proposed to use estimation techniques for natural gas price forecasts as part of the power plant characteristics data, eliminating the need for generators to supply natural gas price forecasts. The Committee has previously stated its conclusion that the mere fact that data is commercially sensitive does not mean that the Energy Commission should not collect data that is needed. As a result, the Committee concludes that collection of historic fuel prices under the original proposal be retained. However, as an additional safeguard for this commercially sensitive data the Committee is proposing that there be a three-month lag, or one-quarter delay, in the filing of fuel prices by generators.

III OVERVIEW OF DATA COLLECTION PROPOSAL

PRINCIPLES

The Energy Commission endorsed the Committee's policy goals for the rulemaking proceeding on data collection at the same time it adopted findings and conclusions on jurisdictional issues in June 1998. The Energy Commission affirmed the Committee's goal of streamlining its data collection activities where possible and developing the most efficient, equitable and cost-effective method for acquiring necessary data. The Energy Commission determined that the function a market participant performs, regardless of ownership or monopoly status, should define what data it supplies. This was based on the policy principle that entities performing equivalent functions or delivering equivalent services should have equivalent data submission responsibilities.

The Energy Commission confirmed that the Committee's policy should be to pursue data necessary to allow the Energy Commission to accurately project loads and adequately model the electricity system as part of its electricity monitoring trends assessment and policy development functions. The Energy Commission endorsed the Committee's examination of new methods to obtain these data in the rulemaking.

On the supply side, the Energy Commission endorsed the principle that it needs sufficient or appropriate data to allow it to characterize power plants and the electricity system including fuel use, heat rates and other characteristics to allow system modeling. The Energy Commission supported the need for system and generation data including ISO/PX prices and quantities to support analytical reports. As part of its streamlining efforts, the Energy Commission endorsed the principle that it should rely on one form or set of forms for all entities who perform the same function in the market.

ASSESSMENT ACTIVITIES AND USES FOR DATA UNDER RESTRUCTURING

As part of its broad assessment authority under the Warren-Alquist Act, the Energy Commission conducts analytical activities to support three primary functions relevant to this proceeding: electricity monitoring, trend assessment and policy development. The primary purpose of these activities is to inform the Governor, the Legislature and the public about the mid- and long-term outlooks for the electricity industry and to develop robust strategies under a range of possible future scenarios. The Energy Commission can also examine the impacts of future demand and supply trends on the economy, the environment and the public health and safety to guide policy makers in addressing important energy issues and developing sound energy policy.

One of the primary objectives of the Energy Commission in assessing the electricity market is to inform the Legislature and Governor about whether the competitive generation market and its structures are meeting the goals and assumptions contained in AB 1890.[4] In moving from a regulated generation market to a competitive one the Legislature intended:

[4] Assembly Bill 1890, Statutes of 1996

- That the State's citizens and businesses achieve the economic benefits of restructuring;
- That new market structures provided competitive, low-cost and reliable electric service;
- That customers in the new market have sufficient information and protections; and
- That California's commitment to developing diverse, environmentally sensitive electricity resources is preserved.

The Energy Commission intends to use its analytical capabilities to address these objectives and issues and provide essential information about how the market is performing and the extent to which the public policy goals in AB 1890 are being met. This information will be important as the market continues to evolve and we move through the transition period to a more fully competitive market. The Energy Commission will need some fundamental data on generator output and fuel use, as well as power plant characteristics, to adequately assess the market and the interconnected electricity system under restructuring.

The Energy Commission serves as an early warning system for identifying emerging problems and opportunities. We examine uncertainties, market barriers, and diseconomies for the energy industry and help to identify opportunities to improve efficiency, lower prices, minimize environmental impacts and conserve natural resources. The Energy Commission can also play an important role in identifying trade-offs between investments in generation, transmission and load reducing strategies. As the restructured market develops, the Energy Commission can provide information and assess ways to increase the competitiveness of electricity components such as ancillary services that are still being provided through a mix of cost-based and market-based mechanisms.

To support these analytical activities, the Energy Commission collects data and develops accurate information on current and historic electricity production, resource mix, and fuel consumption. This involves assessment of the California market and its supply and demand relationships with adjacent regions in the interconnected Western Grid. The Energy Commission examines supply-side performance, identifying trends in system performance, and potential concerns and opportunities should these trends continue. In this capacity, we also develop the ***Net System Power Report*** required by SB 1305.

As part of our analyses, The Energy Commission evaluates prospective demand growth and supply changes and assesses whether reliability goals are likely to be met in the intermediate- and long-term.[5] The Energy Commission develops and publishes future trend assessment of retail electricity prices and major component services. We also forecast market-clearing prices and assess whether market-clearing prices appear to be sufficient to support additional generation construction. In addition, The Energy Commission proposes to assess the value of demand-side bidding into the PX and the ISO as an element of future reliability standards and examine whether the costs of metering and price signaling justify their benefits. The Energy Commission can also assess environmental benefits of renewables and alternative technologies given technological performance, regional environmental licensing requirements, land-use compatibility and system impacts of hypothetical increments of supply resource additions.

[5] Under Warren-Alquist Act Sections 25305-8.

A NEW CONCEPT FOR ACQUIRING DATA

The Committee is proposing major streamlining of data collection to accommodate the objective of reducing burdens on market participants in the restructured electricity market. The Committee has struggled with issues of equity in deciding what to require of both the new participants, including ESPs and generators, and the remaining entities of monopoly IOU providers, primarily the UDCs in the restructured market.

The Committee has attempted to strike a balance between competing interests in the proceeding by not placing undue burdens on new market participants, recognizing that some of the new participants are small companies with limited resources functioning in a market with slim margins. At the same time, the Committee wanted to resist the temptation to rely on existing monopoly entities for data that may no longer be appropriate for them to file on the behalf of others. The Committee also recognizes that many of the past resource planning activities, which were the source of much of past data filed by UDCs, has been unilaterally reduced by the UDCs.

In order to address the varied and competing concerns of entities who participated in the proceeding, the Committee has developed a new concept for acquiring data. The Committee has assessed and balanced the actual burden for providing data against the need and uses for that data. The Committee is convinced, based on its understanding of the costs associated with the reduced burden represented by this proposal, that the public benefits justify the reporting requirements.

The Committee has developed a proposal that includes a graduated set of requirements based on the size of power plants, reflecting their importance to the Commission's understanding of the electricity system and the potential impacts of various changes to that system. The Committee is proposing to require a limited set of plant-specific data on power plant characteristics only for those power plants 50 MW or larger.

The Energy Commission will undertake the development of one database for power plant characteristics data. Rather than having parties file all their data as required in the past, the Committee proposes that staff periodically (every two years) send the relevant portions of this database to individual generators for them to update. This approach significantly reduces burdens on UDCs, while at the same time placing only minor data collection responsibilities on new market participants such as independent generators. In addition to the development of a database, the Committee proposes the Energy Commission staff take on responsibilities for the forecasting and estimation of a number of variables regarding generation that were previously conducted by utilities. These new activities for staff will have associated resource implications for the Energy Commission that will need to be addressed. In addition, the participation of industry in a forum to assist staff in develop estimation and/or forecasting methods to develop high quality data will be essential to the success of this effort. The Committee believes this approach is likely to be adequate for our data needs, but reserves the flexibility for the Energy Commission to revise the approach should it prove to be unsatisfactory.

The Committee is also proposing the use of data filed with other government agencies, in particular the Federal EIA, to the maximum extent feasible as a compliance option for generators. This will help to reduce duplicative and redundant filing of data by market participants. In general,

when the reporting requirements of another entity correspond to the Energy Commission's for one or more variables, a generator may report information using that entity's forms. EIA Compliance options are outlined in Sections IV and V. The Committee proposes that staff review EIA, FERC, ISO, State Board of Equalization and any other available public agency forms and develop a technical reference report that will identify additional acceptable compliance options for use in drafting data collection regulations. Staff will periodically prepare a report to identify revisions to the forms used by other agencies and identify additional compliance options if they become available.

Finally, the Committee is proposing to eliminate the vast majority of data and projections from utilities previously required under CFM. Upon adoption of regulations implementing this proposal, staff will take on responsibility for forecasting activities, previously undertaken by regulated utilities, that are necessary for the Energy Commission to meet its assessment and policy development obligations.

As required under past data collection practices, entities submitting data under this proposal would be required to attest to its accuracy and validity. The proposal imposes an obligation for parties to provide data of the specific type requested, of the best quality available, and according to schedule. In addition, Energy Commission staff, as with other data collected, will conduct the necessary reviews of data submissions to ensure compliance and accuracy of data filings.

POWER PLANT CHARACTERISTICS

The Committee has identified a new approach to the data collection methods currently used for power plant characteristics. As noted above, this approach relies on the Energy Commission providing one database on power plant characteristics with biennial updating by market participants. This involves a major shift in responsibility for maintaining data to the Energy Commission. Generators would only be obligated to provide biennial updates.

In the past, the database for generator characteristics was supplied by utilities and updated filings were required under Energy Commission regulations. Under the Committee's new approach, the Energy Commission staff would take on the burden of building a database on generator characteristics and would require only a biennial updating by generators. The Energy Commission staff would send the relevant portions of the database to generators every two years and ask that they simply review the data and note any changes in power plant characteristics. This represents a major streamlining of data collection from market participants and substantial shift of burdens to the Energy Commission.

Implementing the Principles

The Committee's recommendations are guided by the principles of pursuing data collection methods that are not overly burdensome for any single entity, and that balance reporting burdens with public benefits.
It was also the Committee's goal to identify opportunities for the Energy Commission staff to facilitate the reporting process. Additionally, the principle that "equivalent function defines data collection" formed the basis of our power plant characteristics data collection recommendations. In this proposal, utility and non-utility generators are treated the same

where they perform the same functions. A distinction is drawn is in regards to the size or capacity group of the generator.

CFM Reporting is Suspended

The Committee proposes, consistent with suspension of CFM, that historic CFM requirements, including long-term projections, be replaced with a small subset of historic data on power plant characteristics. **This results in the elimination of over 50 forms previously required under CFM as shown in Appendix A. Now, only one form on generator or power plant characteristics will be required of generators.**

The Committee acknowledges that creating a power plant characteristics reporting requirement increases the number of entities reporting these data to the Energy Commission as compared to the old CFM process. This is, however, an inevitable consequence of industry restructuring in California. That process effectively eliminates the utility as an intermediary, and it is the Committee's opinion that utility-based reporting requirements should be reduced substantially. One benefit of this change is that California's reporting requirements will be more consistent with EIA reporting requirements. The EIA has always required individual facilities to submit reports to them.

GENERATOR OUTPUT AND FUEL USE DATA

The Committee recommends that the Energy Commission collect generator output, fuel use, and historic fuel prices. We recommend that generator's report monthly data on a quarterly basis. This proposal includes a compliance option, however, that will significantly reduce the burden on the entity reporting. For historic fuel price data, the Committee proposes that generators be allowed a three-month or one-quarter delay in filing of this data.

The Committee's proposal calls for an increase in the number of entities reporting to the Energy Commission and a decrease in the level of effort for reporting entities over past data collection practices. **Also, the Committee is proposing the elimination and consolidation of a number of forms for the data collection historically done under QFER, significantly reducing the number of QFER forms the Energy Commission will collect in the future as shown in Appendix A.** The large effort currently required of utilities to provide aggregated purchases from many generators, both their own and those they have contracts with, can be eliminated. A reduced set of forms applicable to all generators, filed by the generator, will suffice under the Committee's proposal. Furthermore, this submission can, in most cases, be a photocopy of forms that must already be filed with EIA. Thus the effort required of generators for new direct reporting requirements to the Energy Commission is negligible.

The Committee has identified the EIA as a significant source for much of the data needed on generator output and fuel use. For more than 90 percent of this data the Energy Commission needs, EIA forms will be considered acceptable compliance options in many specific instances, further reducing burdens on market participants. EIA data will be sufficient for generators below 50 MW. For generators above 50 MW, EIA data will also be sufficient with the exception of one variable; information on fuel prices.

The Committee believes these substantial changes, described in further detail in Section IV, represent a new way of doing business that is more in line with a competitive market than our past methods of data collection.

Implementing the Principles

Consistent with the recommendations regarding power plant characteristics, the Committee's proposal is guided by the principle of pursuing data collection methods that are not overly burdensome and embody a least-cost approach. Additionally, the principle that "equivalent function defines data collection" formed the basis of our generation and fuel-use recommendation.

Generator Output and Fuel Use Reporting Requirements

In this proposal, all generators, whether owned by a regulated utility or a private entity, are treated the same where they perform the same functions. The effect of this is that regulated utilities will report the detailed output data for their own facilities, but will no longer be required to report the output of generators with which they have purchase agreements. All privately-owned generators would report directly to the Energy Commission. This change results in a reduction in utility reporting requirements, but an increase in non-utility reporting requirements. However, reporting requirements for the industry as a whole are greatly reduced from previous practices. An important feature of this proposal is segmented, or graduated, reporting requirements based on size of facility. The smallest facilities (below 10 MW) would file nothing at all, while the larger facilities (10 MW or larger in size) would file monthly information on a quarterly basis.

CONFIDENTIALITY

Some of the variables the Committee proposes to collect may be sensitive business information, while other variables are not. Specifically, those data that parties expressed concerns about are heat rates, forced outage rates, ramp rates, maintenance outage schedule, operation and maintenance costs, and fuel price. The Committee is proposing to use estimation techniques for heat rates, O&M costs and emission rates, so confidentiality may be less of a concern. However, the Committee agrees that the data elements listed above meet the definition of "trade secret" and should be fully protected from release.

As discussed in the Committee's response to parties' comments, the Committee is proposing to initiate a process to revisit the existing Energy Commission confidentiality regulations. This process will be conducted in parallel with the Committee's development of data collection regulations to follow Energy Commission action on the Committee's proposal for data collection. During this proceeding, the Committee will determine the exact data elements that meet the definition of trade secrets and provide for blanket confidentiality designation of appropriate categories of data. This will obviate the need for parties to request confidentiality on a case-by-case basis for data submissions. The Committee is also proposing to review the Energy Commission internal procedures for handling confidential information to safeguard against any inadvertent disclosure of confidential data.

In light of the proposed actions of the Committee to further revise confidentiality regulations to meet industry concerns, and the recent actions of EIA to revise its confidentiality provisions for

various types of power plant-specific data, generators should have increasing confidence that once data is designated confidential it will remain so.

The remainder of this section addresses differences in the treatment of confidential data between the Energy Commission and EIA that will need to be addressed when the confidentiality regulations are revised.

Table 1
California Energy Commission Procedures
For Designating Information Confidential

	Generator Output	Fuel Use	Fuel Cost/Price
Before 8/3/98	By Request	By Request	By Request
After 8/3/98	Automatic Protection	Automatic Protection	Automatic Protection

Table 1 shows that requests for confidential protection of data were handled on a case-by-case basis prior to 8/3/98. An individual submitter had to make a request for confidentiality. Although the decision to disclose such data was influenced by the submitter's request, disclosure was governed by a balancing of public benefit against private harm. After that date, the Energy Commission regulations provided automatic confidentiality protection for generator output and fuel use data. In providing for disclosure of aggregated data, the Energy Commission may require consultation with the submitter to identify suitable aggregation methods.

However, changes to procedures at the Federal Government level that were made subsequent to Energy Commission decisions greatly affected what can be considered confidential. These changes are shown in **Table 2**.

Table 2
Federal Energy Information Agency Procedures
For Designating and Disclosing Confidential Information

	Generator Output	Fuel Use	Fuel Cost/Price
Before 1/1/99	Automatic Protection	Automatic Protection	Not Collected
After 1/1/99	Disclosable	Disclosable	Not Collected

Table 2 shows, as a result of changes at the EIA on 1/1/99, production and fuel use data is disclosable and cannot be held confidential. Public access to data on generator output and fuel use collected by EIA eliminates the Energy Commission's ability to designate such data confidential.

However, information on fuel cost and price are unaffected by the changes at the Federal level and current Energy Commission confidentiality regulations suggest non-utility data submissions will receive automatic confidential designation, as shown in **Table 3**. Energy Commission confi-

dentiality regulations do not explicitly refer to fuel price or cost data, since they are not part of the existing QFER reporting requirements. The Committee's intent is to provide protections for cost/price data and will work to that end. Disclosure of fuel cost/price data may occur in aggregated form. This may require consultation with the submitter to identify suitable aggregation methods.

Table 3
Results of Combined Agency Procedures
For Designating and Disclosing Information Confidential

	Generator Output	Fuel Use	Fuel Cost/Price
After 1/1/99	Disclosable	Disclosable	Automatic Protection for Non-utility facility data. Aggregated disclosure to ensure confidentiality of individual facility data.

IV POWER PLANT CHARACTERISTICS RECOMMENDATIONS

The Committee recommends that the Energy Commission continue to collect basic data on the power plant characteristics for generators that are located in California. However, to reduce reporting burdens on market participants, the Committee proposes to have staff develop a database on power plant characteristics that would be updated by power plant owners every two years. The proposed data are shown in **Table 4** and are organized into five general categories by size. The variables are plant identifiers, operating data, operation and maintenance costs, fuel price, and emission factors. In this section, the specific data requirements for each capacity group are described, including who must report, and compliance options to facilitate reporting.

Most of these data are reported to the EIA, the PX and/or the ISO and are readily available to the generators and UDCs who would be required to report to the Energy Commission. In many cases, however, data are reported under confidentiality agreements. The Committee recommends that these data be given confidential protection at the Energy Commission as well, which may require revisions to confidentiality regulations or other measures. The confidential nature of certain data is a major concern of many parties to this proceeding. This concern is addressed in detail in Part III of this report.

In particular, parties expressed concerns about facility-specific operating, operation and maintenance cost, and fuel price data. These concerns prompted the Committee to recommend developing generic estimates for many of the data. For smaller power plants (those from 1-10 MW and 10-50 MW), the Committee believes that staff and industry can develop suitable estimates for various specific power generation technologies. For the smallest two categories of power plants, we believe staff can identify suitable generic assumptions based on manufacturer data and relieve any burdens on the owners of such facilities to report most engineering and cost variables. For power plants greater than 50MW in size, the Committee is proposing the use of staff-developed estimates for O&M costs and emission factors. Rather than block heat rates outlined in the Committee's April 28, 1999 draft proposal, the Committee proposes to rely on a full rated capacity heat rate currently filed with EIA. Staff would be responsible for estimating heat rate curves needed for system modeling. The Committee proposes to collect plant-specific characteristics for power plants 50 MW or greater in size, as outlined below.

We believe that this graduated set of reporting requirements balances the incremental benefits to the Energy Commission of having sufficiently precise data to enable us to meet our assessment obligations with the reporting requirement burden on power plant owners/operators. The Committee proposed a database reviewing process to facilitate compliance with power plant characteristics reporting requirements outlined in **Appendix C**.

A feature of the current self-generator reporting requirements are retained and expanded. At present, utilities are required to report certain data about every power plant interconnected to the distribution system. All facilities greater than 10 MW have historically reported these data

using CFM forms. The Committee recommendation is to expand this requirement to the entire population of generators irrespective of size. This recommendation, however, further aligns the Energy Commission with the EIA's approach. EIA reporting requirements already place this obligation on the utilities. Therefore, the Committee recommends that the staff use this database to identify generation facilities, and in the case of very small ones, to substitute for direct reporting.

CAPACITY GROUP 1: POWER PLANTS WITH A CAPACITY OF LESS THAN 1 MW

No direct reporting requirements. The Energy Commission's need for routinely reported information on these facilities can be satisfied by an expansion of the current obligation of utilities to provide data on interconnected generators. Currently utilities report on facilities 10 MW or larger. The Committee's proposal would require reporting on all interconnected facilities regardless of size.

CAPACITY GROUP 2: POWER PLANTS WITH A CAPACITY GREATER THAN 1 MW AND LESS THAN 10 MW

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. For this capacity group, these data are all the *plant identifiers* and *operating data* items 2a, b, c, and d from **Table 4**.

Table 4
List of Power Plant Characteristics Variables

1. Power Plant Identifiers	
a.	Name
b.	Location
c.	Ownership
d.	Name plate capacity
e.	Date installed
f.	Estimated retirement date
g.	Unit type
2. Plant Operating Data	
a.	Type of fuel used
b.	Dependable capacity
c.	Thermal capacity
d.	Full capacity heat rate
e.	Equivalent forced outage rate
f.	Maintenance schedule or MOR
g.	Ramp rate
h.	Cold start-up time
i.	Warm start-up time
j.	Warm start-up energy
k.	Minimum down time
l.	Minimum up time
m.	Hydro unit data
n.	Pumped storage unit data

o.	Contract type (QF, RMR, etc.)

Table 4
List of Power Plant Characteristics Variables
Continued…

3.	**Operation and Maintenance (O&M) Cost**
a.	Variable O&M
b.	Fixed O&M
4.	**Fuel Price Data**
a.	Fixed and variable prices
b.	Dispatch price
5.	**Emission Factors (refer to Table 7 for specific emissions)**

CAPACITY GROUP 3: POWER PLANTS WITH A CAPACITY GREATER THAN 10 MW AND LESS THAN 50 MW

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. In cooperation with industry, staff will develop estimates for power plant operating characteristics (**Table 4: 2a, b, c, d, e, f, g, h, i, j, k. l, m, and n**), and operation and maintenance cost (**Table 4: 3a and b.)** needed for analyses of facilities in this size range. Fuel price data estimates will be developed using information provided by generators on new forms, such as the illustrative samples shown in **Appendix E**. Overall reporting requirements are summarized in **Table 5**.

Table 5
Reporting Requirements for Generators 10 - 50 MW

Variable	Who is Responsible	Where Else Data Is Reported	How to Report to the Energy Commission
Plant Identifiers	Generators	EIA	Biennial Update of CEC Form
Operating Data	Generators	EIA	No Reporting Required
O&M Cost	Staff	Estimates	No Reporting Required
Fuel Price Data	Generators	EIA	Biennial Reporting on Simplified CEC Forms
Emission Factors	Staff	Estimates or AQMDs	No Reporting Required

CAPACITY GROUP 4: POWER PLANTS WITH A CAPACITY GREATER THAN 50 MW

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. For power plants 50 MW or greater, the Committee proposes to collect plant-specific data as shown in **Table 6.**

Table 6
Reporting Requirements for Generators >50 MW

Variable	Who is Responsible	Data Reported Elsewhere	How to Report to the Energy Commission
Plant Identifiers	Generators	EIA, PX, ISO	Biennial Update of CEC Form
Operating Data	Generators	EIA, PX, ISO	Biennial Update of CEC Form
O&M Cost	Staff	EIA, PX, ISO	No Reporting Required
Fuel Price Data	Generators	EIA	Biennial Reporting on Simplified CEC Forms
Emission Factors	Staff	AQMDs	No Reporting Required

Plant Identifiers

The Committee proposed to collect power plant identifier information for generators in this size category (**Table 4, 1a-g**.)

Operating Characteristics

The Committee recommends that power plant owners report the following operating data: **Table 4, 2a-o.** These variables are needed for modeling the interconnected system of power plants serving California.

Fuel Supply and Costs

The Committee recommends the collection of historical fuel prices as described in Section V. Beyond this historic fuel price data, the Committee recommends the collection of additional information to allow staff to estimate future fuel prices and eliminate the reporting of forecasted fuel prices by utilities. The specific information required would be information on which generic prices are used to make dispatch decisions for the facility and the source of its natural gas supply, and would be reported using new forms that staff would develop. Illustrative samples of forms which could be relied on to estimate fuel prices are shown in **Appendix D** and provide, in the Committee's opinion, a very simplified reporting mechanism. The facility operator would simply check relevant boxes and fill in appropriate percentages.

For some near-term analyses and locational impact assessments, a separate natural gas price forecast for each generation location would be needed. In order to be able to prepare an individual price forecast for each generation site being studied, it is necessary to have an estimate of the supply mix coming from each supply source. A simple table could be devised where the facility operator would check off the range (in percent of supply from each source) expected to take place in the next five years. The Energy Commission would use its supply price forecast (weighted by the facility operators' supply factors) and transport and distribution costs to forecast the individual prices.

V GENERATION AND FUEL USE DATA RECOMMENDATIONS

The Committee's specific recommendations about historic generator output, fuel use, and fuel cost reporting requirements are described below. Much of the generator output and fuel-use data are reported to the Federal Government on various EIA forms. An overview of the reporting requirements is shown in **Table 7**. The discussion also identifies compliance options by capacity group. Where there are differences between EIA reporting requirements and the Committee-proposed requirements, the differences are discussed.

Included is a comparison of these requirements to those established by the EIA. The EIA has extensive generator reporting requirements. In the past there have been some differences between Energy Commission and EIA requirements. As a result of the changes proposed by the Committee, and changes now in progress by EIA, there will be few differences. The Committee notes that in providing a compliance option that entails the filing of EIA forms in lieu of Energy Commission forms, the frequency of filing must at least match the Committee's proposed requirements.

CAPACITY GROUP 1: POWER PLANTS WITH A CAPACITY OF LESS THAN 1 MW

The Committee does not recommend a change in reporting requirements for this group. No power plant with a capacity of less than 1 MW will be required to report information directly to the Energy Commission. The only source for information on generation by this capacity group will be QFER Form 2A (Monthly Utility Purchases From Non-Utilities). This form is filed quarterly by those utilities in the State which purchase generation from this capacity group.

CAPACITY GROUP 2: POWER PLANTS WITH A CAPACITY EQUAL TO OR GREATER THAN 1 MW AND LESS THAN 10 MW

The Committee recommends that all power plants with a capacity equal to or greater than 1 MW, and less than 10 MW, file the following information annually on a unit by unit basis:

- Annual generation
- Capacity at system annual peak demand
- Annual sales to others
- Annual fuel consumption

The Committee recommendation calls for a change in the current filing status of this group. Currently, the Energy Commission does not require non-utility power plants in this capacity group to file any information directly. Non-utility generators do, however, report to the EIA. This

proposal includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal increase in reporting burden for non-utility generators and reduces the reporting burden for utilities.

QFER Form 11 (Non-Utility Use Of Generated Electricity) and QFER Form 12 (Non-Utility Use Of Fossil Fuels) could be combined and modified to include an annual data column and be renamed to apply to both utility and non-utility power plants. This capacity group, regardless of ownership, would be required to file this modified form annually. As a compliance option, the Committee recommends that the Energy Commission accept EIA Form 759 (A Monthly Power Plant Report Filed Annually For Generation Of This Size) or EIA 860B (Annual Electric Generator Report - Non-Utility) for purposes of meeting the reporting requirement.

Table 7
Overview Of Proposed Generation And Fuel Use Data Reporting Requirements

Generator Size	In-State Facilities	Reporting Requirements	Electricity Production	Fuel Use and Cost
< 1 MW	425	None	None	None
1 – 10 MW	275	Data elements	Annual net generation, capacity at peak demand, and sales to others (by SIC Code for a subset)	Annual fuel use by fuel type
		Data unit	By unit	By unit
		Frequency	Annual	Annual
		Change in reporting burden	New State requirement for self-generators, most QFs, and utility-owned facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for self-generators, most QFs, and utility-owned facilities, but only a minor incremental burden over existing Federal requirement
10 – 50 MW	275	Data elements	Monthly generation, capacity at peak demand, and sales to others (by SIC Code for a subset)	Monthly fuel use by fuel type
		Data unit	By unit	By unit
		Frequency	Quarterly	Quarterly
		Change in reporting burden	New State requirement for pure QFs and utility –owned facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for pure QFs and utility-owned facilities, but only a minor incremental burden over existing Federal requirement

Table 7 Continued

Generator Size	In-State Facilities	Reporting Requirements	Electricity Production	Fuel Use and Cost
>50 MW	209	Data elements	Monthly generation, capacity at peak demand, and sales to others. (by SIC Code for a subset)	Monthly fuel use by fuel type Monthly fuel cost by fuel type
		Data unit	By unit	By unit
		Frequency	Quarterly	Quarterly
		Change in reporting burden	New State requirement for pure QF or individual utility facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for pure QF or individual utility facilities. Fuel use is only a minor incremental burden over existing Federal requirement, but fuel cost is an increase for non-utility generators.

CAPACITY GROUP 3: POWER PLANTS WITH A CAPACITY EQUAL TO OR GREATER THAN 10 MEGAWATTS AND LESS THAN 50 MW

The Committee recommends that all power plants with a capacity equal to or greater than 10 MW but less than 50 MW be required to file quarterly on a unit by unit basis:

- Monthly generation
- Capacity at system monthly peak demand
- Monthly sales to others
- Monthly fuel consumption

The Committee recommendation calls for a change in the current filing status of this group. Currently, only those non-utility generators which burn fossil fuels, or do not sell all of their output to an electric utility, presently file QFER Form 11 with the Energy Commission (see **Appendix A**). This change will result in an increase in the number of non-utility generators filing with the Energy Commission. This proposal also includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal increase in reporting burden for non-utility generators and reduces the reporting burden for utilities.

For utility-owned generation, the minimal increase in the reporting burden is a disaggregation of the information already filed quarterly. If this recommendation is followed for utility generators in Capacity Groups 2, 3 and 4; the need for QFER Form 1 (Electric Utility Monthly Generation Resources) and QFER Form 3 (Electric Utility Monthly Use Of Generation Fuel) is eliminated.

QFER Form 11 and QFER Form 12 can be combined and be renamed to apply to both utility and non-utility power plants. This power plant group, regardless of ownership, would be required to file this modified QFER form quarterly. As a compliance option, the Committee

recommends that the Energy Commission accept EIA Form 759 (a monthly power plant report filed annually for generation of this size) or EIA Form 860B (Annual Electric Generator Report – Non-Utility) for purposes of meeting the reporting requirement. In providing this option, the frequency of filing must at least match Energy Commission's proposed requirements. For EIA Form 759, the three monthly submissions could be sent to the Energy Commission each quarter, or they could be sent individually each month when sent to EIA.[6] However, using EIA Form 860B as a format for Energy Commission reporting does not reduce the need for quarterly filings.

CAPACITY GROUP 4: POWER PLANTS WITH A CAPACITY GREATER THAN 50 MW

The Committee recommends that all power plants with a capacity equal to or greater than 50 MW be required to file the following information quarterly, on a unit by unit basis:

- Monthly generation
- Capacity at system monthly peak demand
- Monthly sales to others
- Monthly fuel consumption
- Monthly fuel cost, with a one-quarter delay in filing deadline.

The Committee recommendation calls for a change in the current filing status of this group. This proposal also includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal increase in reporting burden for non-utility generators and reduces the reporting burden for utility generators.

QFER Form 11 and QFER Form 12 could be combined and be renamed to apply to both utility and non-utility power plants. In addition, a row for monthly fuel costs would be added. This power plant group, regardless of ownership, would be required to file this modified QFER form quarterly.

For non-utility power plants, EIA Form 900 (filed monthly) in combination with EIA Form 860B (filed annually) would be accepted as a compliance option for purposes of meeting the filing requirement for the Form 11 part of the modified form.[7]

For non-utility power plants, EIA Form 860B would be accepted as a compliance option for purposes of meeting the filing requirement for the Form 12 part of the modified form.[8]

[6] On EIA Form 759 federal regulation provide that data reported on "stocks end of the month" is confidential. For data treated as confidential by EIA, the Committee notes these data could be masked (if paper filings) or deleted (if electronic) when submitted to the Energy Commission.

[7] Monthly generation and capacity at monthly peak.

Monthly fuel cost information for non-utility power plants must be filed on the modified QFER form because no other form is used to collect information on non-utility generator fuel costs.

For utility power plants, EIA Form 759 (a Monthly Power Plant Report) and EIA Form 767 (Steam-Electric Plant Operation and Design Report -- filed annually) would be accepted as a compliance option for purposes of meeting the filing requirement for all parts of the modified QFER form except the monthly cost of fuel which can be satisfied by filing FERC Form 423.

Generator Submission of SIC Sales Data

The proposed generator production and fuel use reporting requirements include aggregate sales by four-digit Standard Industrial Classification (SIC) code. SIC classification and reporting is required only for the following private sales cases:

- Through-the-fence sales to industrial or commercial facilities sharing a common property line with the generating facility,
- Sales to end-users within an islanded, non-interconnected distribution system (such as a distributed generation industrial park), and
- Self-consumed generator output would be classified by SIC Code of the primary business activity of the facility where the generator is located.

Sales to wholesale entities such as the ISO, the PX, or a municipal utility need not be classified by SIC Code, because no retail transaction takes place. Bilateral contract sales to direct access end-users need not be reported by end-user SIC Code because such sales will be reported by the retailer and/or the distribution utility.

Since 1991, each self-generation facility with at least 10 MW of capacity has filed data on generator output, onsite electricity consumption, net peak generator output, electricity sold to private parties and fuel use by SIC Code. However, facilities that have the same SIC Code and were located in the same electric and gas utility service areas could aggregate their filings. In addition, electric utilities provided estimates of onsite electricity consumption by SIC Code for self-generation facilities less than 10 MW.

In its September 1998 report, staff identified the level of self-generated electricity consumption for selected years from 1980 through 1996. **Table 8** shows that self-generation has increased to 19.4 percent of total industrial electricity consumption over this period. For the Energy Commission to have a basic understanding of the important link between electricity consumption and the broad categories of economic activity, it is necessary to have generator data by SIC Code for the industrial facilities.

Table 8
California Total Self-Generation of Electricity Consumption
(percent)

Year	Residential	Commercial	Industrial
1980	0.0%	0.0%	2.1%

[8] Monthly fuel consumption.

1984	0.0%	0.5%	4.7%
1988	0.0%	1.6%	12.6%
1992	0.0%	1.8%	15.0%
1996	0.0%	2.0%	19.4%

Table 9 illustrates the importance of self-generation in certain industries, especially those with high thermal requirements and cogeneration is the technology of choice. The Energy Commission would not be able to perform industry-specific assessments without this information on self-generation and private sales. Such assessments include:

- Demand forecasts;
- Energy efficiency opportunities linked to specific process technologies that are industry-specific;
- RD&D opportunities that are industry specific.

In addition, the Energy Commission currently supports EPRI research targets in 1998/1999 that include several industry-specific activities. SIC Code data is necessary to quantify the impact on the industry if the technologies being investigated were successfully deployed.

Currently, there are approximately 100 entities reporting to the Energy Commission as self-generators (10 MW or larger). Most industrial facilities already know their own SIC Code classification since it is a common way of identifying its own activities in the context of business statistics identifying the size of the overall industry and the competition. Few, if any, generators are currently reporting private, through-the-fence sales where they would have to classify an operation other than their own. In some instances, staff has assisted gas marketers in identifying the SIC Code of their end-use customers, since there is an already existing requirement that they report sales by SIC Code. The Energy Commission can provide such assistance in identifying SIC Codes in the future.

Table 9
California Electric Consumption in 1996 For Specific SIC Codes
(million kWh)

SIC	Industry Description	Self-Gen. Consumption	Utility Sales	Total Consumption	% of Self-Gen.
261	Pulp Mill	168	55	223	75.3%
263	Paperboard Mill	390	129	519	75.1%
291	Petroleum Refining	5,102	2,420	7,522	67.8%
206	Sugar	164	141	306	53.7%
13	Oil/Gas Extraction	1,583	2,636	4,219	37.5%
28	Chemical	1,160	2,467	3,627	32.0%
24	Lumber	403	966	1,369	29.4%

APPENDIX A-1

LIST OF FORMS ELIMINATED FOR THE SUPPLY PORTION OF THE 1996 ELECTRICITY REPORT (ER 96)

R-1 Summary of Loads and Resources
R-2 Summary of Energy Requirements and Resources - Recorded
R-3 Existing, Committed and Planned Utility-Owned Resources
- R-3A Thermal Resources
- R-3B Hydro Resources
- R-3C Pumped Storage
- R-3D Monthly & Annual Hydro Variation Data for Production Cost & Reliability Modeling

R-4 Qualifying Facilities, Self-Generators & other Non-Utility Generators
- R-4A Capacity
  - R-4A1 Dependable Firm Capacity
  - R-4A2 Undependable Firm Capacity
  - R-4A3 Dependable As-Available Capacity
  - R-4A4 Undependable As-Available Capacity
  - R-4A5 Total Dependable Capacity
- R-4B Power Plant Performance Factors for Qualifying Facilities/Self Generation
- R-4C Energy
  - R-4C1 Energy from Dependable Firm Capacity
  - R-4C2 Energy from Undependable Firm Capacity
  - R-4C3 Energy from Dependable As-Available Capacity
  - R-4C4 Energy from Undependable As-Available Capacity
- R-4D: Prices for Energy
- R-4E Individual Project Data Base
- R-4F On-Line Capacity

R-5 Inter-Utility Transactions – Existing and Committed
- R-5A Exports
- R-5B Imports

R-6 No Longer Used
R-7 Environmental Pollutants, Fuel Storage, Land & Water Use
R-8 Historical & Projected Operations Data (Power Plant Performance Factors)
- R-8A Historical Outage Data
- R-8B Performance Factors Used in Resource Case Analysis
- R-8C Performance Factory for Combustion Turbines

R-9 Off-System Losses for Remote Resources
R-10 Fuel Consumption & Resources
- R-10A Historical and Projected Fuel Consumption
- R-10B Heat Content and Cost of Fuel Resources

R-11 Resource Options & Technology Characterizations
R-12 Construction Outlays for Individual Utility Electric Plant Additions
R-13 Financial Variables
- R-13A Financial Variables: Life of plant by Asset Type
- R-13B Fixed Charged Rates

R-14 Inflation, Discount, and Escalation Rates

APPENDIX A-2

LIST OF FORMS ELIMINATED FOR THE SUPPLY PORTION OF THE 1996 ELECTRICITY REPORT (ER 96) FOR "NON-REGULATED" UTILITIES

R-3 Existing, Committed and Planned Utility-Owned Resources
- R-3A Thermal Resources
- R-3B Hydro Resources
- R-3D Monthly & Annual Hydro Variation Data for Production Cost & Reliability Modeling

R-4 Qualifying Facilities, Self-Generators & other Non-Utility Generators
- R-4A Capacity
  - R-4A1 Dependable Firm Capacity
  - R-4A2 Undependable Firm Capacity
  - R-4A3 Dependable As-Available Capacity
  - R-4A4 Undependable As-Available Capacity
  - R-4A5 Total Dependable Capacity
- R-4B Power Plant Performance Factors for Qualifying Facilities/Self Generation
- R-4C Energy
  - R-4C1 Energy from Dependable Firm Capacity
  - R-4C2 Energy from Undependable Firm Capacity
  - R-4C3 Energy from Dependable As-Available Capacity
  - R-4C4 Energy from Undependable As-Available Capacity
- R-4D: Prices for Energy

R-7 Environmental Pollutants, Fuel Storage, Land & Water Use

R-8 Historical & Projected Operations Data (Power Plant Performance Factors)
- R-8A Historical Outage Data
- R-8B Performance Factors Used in Resource Case Analysis
- R-8C Performance Factory for Combustion Turbines

R-11 Resource Options & Technology Characterizations

APPENDIX A-3

REVISIONS TO FORMS

QUARTERLY FUEL AND ENERGY REPORT (QFER) FORMS		FORM STATUS
Electric Utility and Gas Utility Forms		
~~Form 1~~	~~Electric Utility Monthly Generation Resources~~	ELIMINATED
Form 2	Electric Utility Monthly Inter-Utility Transactions	REVISED
~~Form 2A~~	~~Electric Utility Monthly Purchases from Non-Utility~~	ELIMINATED
~~Form 3~~	~~Electric Utility Monthly Use of Generation Fuel~~	ELIMINATED
Form 4	Electric/Gas Utility Monthly Sales/Deliveries by SIC Code	*
Form 4A	Electric/Gas Utility Monthly Resale and Annual Projection	*
From 4B	Electric/Gas Utility Corrections to Form 4 Data	*
Form 5	Electric/Gas Utility Annual Sales by SIC Code and County	*
Form 6	Gas Utility Monthly Receipts (with annual costs)	*
Form 6A	Gas Utility Monthly Send-out (with annual revenues)	*
Form 7 Category	Gas Utility Annual Revenue by SIC Code and Rate	*
~~Form 13~~	~~Electric Utility Estimate of Monthly Self Generation~~	ELIMINATED
~~Form 14~~	~~Gas Utility Estimate of Monthly of Self-Generation Gas Use~~	ELIMINATED
Form 15	Electric Utility Annual List of Self-Generating Facilities	REVISED
Form 16	Electric/Gas Utility Biennial SIC Code Accuracy Report	*
Gas Producer, Gas Processor, and Gas Marketer Forms		
Form 8	Gas Producer Report	*
Form 9	Gas Processor Annual Report	*
Form 10A	Gas Producer/Marketer Annual Report	*
Non-Utility Electric Generator Forms		
Form 11	Non Utility Monthly End-use of Generated Electricity	Combined
Form 12	Non Utility Monthly Use of Fossil Fuels for Generation	Combined

*= Consumer Data reporting requirements are not addressed by the scope of this report. They will be addressed in subsequent rulemaking efforts.

APPENDIX B

ENERGY MARKET AD HOC INFORMATION PROCEEDING WORKSHOPS, PAPERS AND COMMENTS RELATED TO GENERATION DATA

Dec. 1, 1997	Committee Workshop of Supply Data (cancelled at parties request)
Dec. 15, 1997	Deadline for Parties Comments on Generation & Consumer Data
Feb. 1998	Draft Final Scoping Report
June 25, 1998	Comments on Report from MRW & Associates rep: AEP, IEP, Coral Energy,
July 6, 1998	Green Mountain Energy, New Energy Ventures
	Workshop
July 9, 1998	IEP/Co-Gen Council's Letter to Commissioners
July 17, 1998	Final Committee Scoping Report
July 28, 1998	Scoping "Order" signed
July 30, 1998	Staff Paper: Power Plant Characteristics
Aug. 18, 1998	Workshop and Presentation
Sept. 2, 1998	Comments from CA Biomass Energy Alliance, and Arter & Hadden rep:
Sept. 2, 1998	Dynergy Inc. and Reliant Energy (formerly Houston Industries)
	Staff Paper: Power Plant Fuel Cost Air Pollutant Emission and O&M Cost
Sept. 4, 1998	Characteristic
	Workshop with Presentations by Staff and IEP (and Joint Representatives)
Sept. 17, 1998	on QFs, Public & Private Utilities, Merchant Plant Developers, Divested Plant Purchases, Customers and others
	Joint SB 1305 & 97-DC&CR-1 Workshop. (Regional Tracking) Two
Sept. 18, 1998	Presentations: Phil Carver from Oregon Office of Energy and Staff.
	Workshop and Presentation
Sept. 29, 1998	Workshop and Presentation/Staff Comments re: 9-17-98 Workshop
Oct. 13, 1998	Staff Paper: Power Plant Historic Production Data
Oct. 22, 1998	Notice Modifying the Schedule for the Second Phase of the Data Collection
Nov. 16, 1998	Rulemaking
	Notice of Extension of Deadline for Filing Comments re: Staff Papers
Dec. 4, 1998	Edison's Comments on Power Plant Production Data
Dec. 11, 1998	SEMPRA Comments on Power Plant Production Data
Dec. 15, 1998	Comments from Enron Corp., Green Mountain Energy Resource, New
Feb. 2, 1999	Energy Ventures
	Edison's Comments to (Feb., 2, 1999) Comments from Enron & Company
Feb. 26, 1999	Staff Comments to Committee on Getting Heat Rate Data from Generators
Mar. 17, 1999	

Staff Report on Supply Data

APPENDIX C

FACILITATING COMPLIANCE/COMPLIANCE OPTIONS FOR POWER PLANT CHARACTERISTICS DATA

Comprehensive Database

The Committee proposes that Energy Commission staff develop a database review process to facilitate compliance with the regulations' reporting requirements. Generators would be sent a copy of the values for power plant characteristics which we currently use and which they are required to provide under the new data collection regulations. This approach is recommended because it will save respondent effort and avoid confusion about what data is specifically required. It may facilitate compliance with data reporting requirements.

The following steps would be involved with this database-review process:

Step 1. Describe obligation to provide specific generating characteristics in new regulations.

Step 2. Develop structure of database with fields for each specific data requirement.

Step 3. Determine which fields require confidential treatment to avoid disclosure where prohibited.

Step 4. Populate database with data from most current sources.

Step 5. Sort database by owner of generator and generating unit.

Step 6. Send owner a copy of the database's values for characteristics owner is required to provide.

Step 7. Receive owner's updated database, or any other format of the required data, and the owner's legal attestation that its filing meets the regulatory requirements.

Step 8. Review data received for compliance, accuracy and validity.

Step 9. Send owner follow-up data requests where necessary and work with owner on any questions regarding accuracy and validity.

Step 10. Receive omitted or corrected data from owner.

Step 11. Repeat steps 9 and 10 until generator submits all data required by the new regulations.

Step 12. Insert collected data into revised database.

Step 13. Impose confidentiality protections at individual variable levels to prepare non-confidential version of database for unrestricted use.

Step 14. Use and safeguard confidential database in accordance with proper procedures.

APPENDIX D
Illustrative Samples Of Forms For Fuel Price Estimation

Possible Form on Fuel Price Dispatch Decisions

A) Dispatch Price Option	B) Check If You Rely on This Price	C) For Each Price Indicate % Reliance
Current Delivered Price		%
Market Price		%
a. California		%
b. Topoch		%
c. Malin		%
d. Wheeler Ridge		%
None of the Above (If you checked column B in this row, please provide explanation of dispatch price used.)		%

Possible Form on Estimated Future Natural Gas Supply
(Power Plant Site Name)
Estimated Future Natural Gas Supply Mix by Supply Source
(Check the appropriate boxes)

Supply Mix	California	Topoch	Malin	Wheeler Ridge
0-20%				
21-40%				
41 to 60%				
61 to 80%				
81 to 100 %				